

## THE CLAIMS

What is claimed is:

1. An initiator device comprising:

5 an electrical initiation element having signal input nodes thereto; protective circuitry connected across the signal input nodes, the protective circuitry comprising a clamping portion responsive to input signals at the input nodes to divert from the initiation element at least a portion of such input signals, the clamping portion being responsive to a release signal to permit the input signal to pass to the initiation element upon receipt of

10 such release signal; and

a timer portion connected to the clamping portion and to the input nodes, and being responsive to such input signals, for issuing a release signal to the clamping portion after passage of a clamping interval after the receipt of the input signal.

15 2. The initiator device of claim 1 wherein the clamping interval is about 100 microseconds or less.

20 3. The initiator device of claim 2 wherein the clamping interval is in the range of from about 5 microseconds to 100 microseconds.

4. The initiator device of claim 2 wherein the clamping interval is in the range of from about 20 microseconds to 100 microseconds.

25 5. The initiator device of claim 1 comprising a unipolar clamping circuit and a unipolar timer circuit.

6. The initiator device of claim 1 comprising a bipolar clamping circuit and a bipolar timer circuit.

30 7. The initiator device of claim 1 wherein at least one of the electrical initiation element and the protective circuitry are formed as integrated circuitry.

8. The initiator device of claim 7 wherein the initiation element and protective circuitry are mounted on a header comprising two electrical leads connected to the protective circuitry.

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cuitry, and further comprising a shell mounted on the header and a charge of reactive material in the shell for initiation by the initiation element.